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Sequence Listing was accepted.

See attached Validation Report.

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Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=6; day=16; hr=14; min=28; sec=40; ms=678;]

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Application No: 10595610 Version No: 1.0

Input Set:

Output Set:

Started: 2009-05-28 17:18:50.165
Finished: 2009-05-28 17:18:50.697
Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 532 ms
Total Warnings: 3
Total Errors: 1
No. of SeqIDs Defined: 3
Actual SeqID Count: 3

| Error code | Error Description |
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| W 213 | Artificial or Unknown found in <213> in SEQ ID (1) |
| E 257 | Invalid sequence data feature in <221> in SEQ ID (1) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (2) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (3) |

SEQUENCE LISTING

<110> Remer, Ricardo A
Coronha Lima, Marcia
Margis, Rogerio
Alves Ferreira, Marcio

<120> Pharmaceutical Product Comprising Tissue of the Mail Vegetal
Reproductive System

<130> 048220.001US

<140> 10595610
<141> 2009-05-28

<150> PCT/BR04/00100
<151> 2004-11-12

<150> BR PI0305197
<151> 2003-11-12

<160> 3

<170> PatentIn version 3.5

<210> 1
<211> 1818
<212> DNA
<213> Artificial Sequence

<220>
<223> Complete sequence of the coding region of AtGRP17 (4940-5358) +
(5545-6757) - cDNA

<220>
<221> cDNA
<222> (1)..(1818)

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cagatTTTTT ccttctctat ctctttcaga gagagatgga agaaagtttt cttttctcag 120
tatgttctct tttctcatgc cactgttgga ggttattaag attattattg cttctgtggc 180
ctccgtaatc ttcgtcgggt tcgcctgtgt aaccctcgct ggttctgccc cagcattagt 240
cgtaagcacc cgggttttca tcatatttag tcctgttctc gtaccagcta cgatagccac 300
ggttgtcttg ggcacaggat tcacggccgg tggctctttt ggagcgacgg cacttggtct 360
atgagcgaag aactaagtca aaagccatca tcagctcagt ccatcatgtg gcttggttaag 420
taagattatt ataacagctt atattgagat cactcgagat ttatgcttaa ttatataata 480

| | |
|--|------|
| ttcataaacc tatagtttaa aagtatatg aacttcattt gttaacgtac ttataaaata | 540 |
| ttgaacttcg ttcgttttct taattgggtct ctaagtatat atacatactt ttttgtgtga | 600 |
| tgcagacgta ggatgggagt aaagccgaag gataatccac ctccggcagg acttccaccg | 660 |
| aattcgggag caggagcagg aggagctcaa agtctgatca aaaagtcaaa ggcaaagtct | 720 |
| aaaggtgggc ttaaggcttg gtgtaagaag atgttaaaaa gttaaattcgg tggtaaaaaa | 780 |
| ggcaagtcg ggggtggaaa aagtaaattt ggaggtaaag gcggtaaagc cgaaggtgaa | 840 |
| gaaggtatgt cgtctgggga tgaaggtatg tctggaagtg aaggaggtat gtccggaggt | 900 |
| gaaggaggta aatccaaaag tggaaaaggt aaactcaaag ctaaactcga aaagaaaaaa | 960 |
| ggatgtccg gaggggtccga gagtgaagaa ggtatgtctg gaagtgaagg aggtatgtct | 1020 |
| ggtggtggag gaagtaaata caaaagtaaa aaaagtaaac tcaaagctaa attgggaaag | 1080 |
| aaaaaaggta tgtccggagg catgtcagga agtgaagaag gtatgtcttg aagtgaagga | 1140 |
| ggtatgtcca gtggtggagg aagtaaatac aaaagtaaaa aaagtaaact caaagctaaa | 1200 |
| ttgggaaaga aaaaaggtat gtccggaggc atgtcaggaa gtgaagaagg tatgtctgga | 1260 |
| agtgaaggag gtatgtccg aggtggagga ggtaaataca aaagtagaaa aagtaaactc | 1320 |
| aaagctaaat tgggaaagaa aaaatgtatg tccggaggca tgtcaggaaag tgaaggaggt | 1380 |
| atgtctggaa gtgaaggagg tatatccgga ggtggtatgt ctgggggcag tggaaagtaa | 1440 |
| cacaaaattg gaggaggtaa acacggagggt cttggaggta aattcggaaa gaaaagaggc | 1500 |
| atgtccgga gtggaggagg catgtcagga agtgaaggag gtgtgtcttg aagtgaagga | 1560 |
| agtatgtctg gaggtggtat gtctgggggt agcggaaagta aacacaaaat tggaggaggt | 1620 |
| aaacacggag gtcttagagg taaattcggg aagaaaagag gtatgtcagg aagtgaagga | 1680 |
| ggtatgtctg gaagtgaagg aggtatgtcg gaaagtggta tgtccgggag tggagggggt | 1740 |
| aaacacaaaa tcggaggagg taaacacaaa tttggaggag gtaaacacgg aggtggaggt | 1800 |
| ggccacatgg cggagtaa | 1818 |

<210> 2

<211> 543

<212> PRT

<213> Artificial Sequence

<220>

<223> This protein results from the translation of ATGRP17

<400> 2

Met Ser Glu Glu Leu Ser Gln Lys Pro Ser Ser Ala Gln Ser Leu Ser
1 5 10 15

Leu Arg Glu Gly Arg Asn Arg Phe Pro Phe Leu Ser Leu Ser Gln Arg
20 25 30

Glu Gly Arg Phe Phe Pro Ser Leu Ser Leu Ser Glu Arg Asp Gly Arg
35 40 45

Lys Phe Ser Phe Leu Ser Met Phe Ser Phe Leu Met Pro Leu Leu Glu
50 55 60

Val Ile Lys Ile Ile Ile Ala Ser Val Ala Ser Val Ile Phe Val Gly
65 70 75 80

Phe Ala Cys Val Thr Leu Ala Gly Ser Ala Ala Ala Leu Val Val Ser
85 90 95

Thr Pro Val Phe Ile Ile Phe Ser Pro Val Leu Val Pro Ala Thr Ile
100 105 110

Ala Thr Val Val Leu Ala Thr Gly Phe Thr Ala Gly Gly Ser Phe Gly
115 120 125

Ala Thr Ala Leu Gly Leu Ile Met Trp Leu Val Lys Arg Arg Met Gly
130 135 140

Val Lys Pro Lys Asp Asn Pro Pro Pro Ala Gly Leu Pro Pro Asn Ser
145 150 155 160

Gly Ala Gly Ala Gly Gly Ala Gln Ser Leu Ile Lys Lys Ser Lys Ala
165 170 175

Lys Ser Lys Gly Gly Leu Lys Ala Trp Cys Lys Lys Met Leu Lys Ser
180 185 190

Lys Phe Gly Gly Lys Lys Gly Lys Ser Gly Gly Gly Lys Ser Lys Phe
195 200 205

Gly Gly Lys Gly Gly Lys Ser Glu Gly Glu Glu Gly Met Ser Ser Gly
210 215 220

Asp Glu Gly Met Ser Gly Ser Glu Gly Gly Met Ser Gly Gly Glu Gly

| | | | | | | |
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| 225 | | 230 | | 235 | | 240 |
| Gly Lys Ser Lys Ser Gly Lys Gly Lys Leu Lys Ala Lys Leu Glu Lys | | | | | | |
| | 245 | | 250 | | 255 | |
| Lys Lys Gly Met Ser Gly Gly Ser Glu Ser Glu Glu Gly Met Ser Gly | | | | | | |
| | 260 | | 265 | | 270 | |
| Ser Glu Gly Gly Met Ser Gly Gly Gly Gly Ser Lys Ser Lys Ser Lys | | | | | | |
| | 275 | | 280 | | 285 | |
| Lys Ser Lys Leu Lys Ala Lys Leu Gly Lys Lys Lys Gly Met Ser Gly | | | | | | |
| | 290 | | 295 | | 300 | |
| Gly Met Ser Gly Ser Glu Glu Gly Met Ser Gly Ser Glu Gly Gly Met | | | | | | |
| 305 | | 310 | | 315 | | 320 |
| Ser Ser Gly Gly Gly Ser Lys Ser Lys Ser Lys Lys Ser Lys Leu Lys | | | | | | |
| | 325 | | 330 | | 335 | |
| Ala Lys Leu Gly Lys Lys Lys Gly Met Ser Gly Gly Met Ser Gly Ser | | | | | | |
| | 340 | | 345 | | 350 | |
| Glu Glu Gly Met Ser Gly Ser Glu Gly Gly Met Ser Gly Gly Gly Gly | | | | | | |
| | 355 | | 360 | | 365 | |
| Gly Lys Ser Lys Ser Arg Lys Ser Lys Leu Lys Ala Lys Leu Gly Lys | | | | | | |
| | 370 | | 375 | | 380 | |
| Lys Lys Cys Met Ser Gly Gly Met Ser Gly Ser Glu Gly Gly Met Ser | | | | | | |
| 385 | | 390 | | 395 | | 400 |
| Gly Ser Glu Gly Gly Ile Ser Gly Gly Gly Met Ser Gly Gly Ser Gly | | | | | | |
| | 405 | | 410 | | 415 | |
| Ser Lys His Lys Ile Gly Gly Gly Lys His Gly Gly Leu Gly Gly Lys | | | | | | |
| | 420 | | 425 | | 430 | |
| Phe Gly Lys Lys Arg Gly Met Ser Gly Ser Gly Gly Gly Met Ser Gly | | | | | | |
| | 435 | | 440 | | 445 | |
| Ser Glu Gly Gly Val Ser Gly Ser Glu Gly Ser Met Ser Gly Gly Gly | | | | | | |
| | 450 | | 455 | | 460 | |

Met Ser Gly Gly Ser Gly Ser Lys His Lys Ile Gly Gly Gly Lys His
 465 470 475 480

Gly Gly Leu Arg Gly Lys Phe Gly Lys Lys Arg Gly Met Ser Gly Ser
 485 490 495

Glu Gly Gly Met Ser Gly Ser Glu Gly Gly Met Ser Glu Ser Gly Met
 500 505 510

Ser Gly Ser Gly Gly Gly Lys His Lys Ile Gly Gly Gly Lys His Lys
 515 520 525

Phe Gly Gly Gly Lys His Gly Gly Gly Gly Gly His Met Ala Glu
 530 535 540

<210> 3

<211> 1569

<212> DNA

<213> Artificial Sequence

<220>

<223> Complete sequence of the promoter region of the AtGRP17

<400> 3

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| gcgtatatac atagaatgga tccaatttaa ccaaagcaac tgtatgtgac tatgtgaatg | 120 |
| attcaatcgt gagacattga aattgtcggt tctccattac ctttttggaa gaaaaacat | 180 |
| cgaagctag ctaagacttt ttttattaaa cgaacttgct actatttcta tgttttcttt | 240 |
| gaaatgaaaa ttaaatttgt tactgtttca cctaaaactc aaaagtattg ctttttaatt | 300 |
| ttattattaa gaaaaactaa tcttatttat gttaagaaac ctgtcaattt ttcattgtta | 360 |
| atttcggctc tataattatt aattaacaat caatttctca aaaattgcaa tcatgattat | 420 |
| gattagatat atattagttg gattgtgatg ctttttttgt aatataaaat ggatgtttgt | 480 |
| attagtttct cactcatgta attaaacacc aaatgctaga aactagtact tttgtttctc | 540 |
| agctctcgtc tattgttata tctgcaacac gaacaaaaac cttatctagg tggtatatat | 600 |
| cacggttatg tttatgagtt agaagggtt cttcaacaaa aatcacggaa ctacttgat | 660 |
| atatgtatgt gtgtatccga tcgagggtga cttccgggggt tggacgttga agaagacgaa | 720 |
| ttcattgatt gggcttatat atgggcatgt attacttggt tcaagtttgt aacactttta | 780 |

| | |
|--|------|
| gctttttcaa ttctattcga aacccaaaata ttgggctata tatctttata caaccttcaa | 840 |
| gataaatttg accaatttta gaagagcaaa ttgaacccgg ccgttagcgt tagccaaacc | 900 |
| ccaactcctt ttcagtacaa ttaaatacaag aattttctaataaatcgtgaa tttctagaca | 960 |
| tacatatcat aatttcgtca aagcgagcct acacctagtt ttgagctaca taactctttt | 1020 |
| cttttttttt ttatgattag gaggtttcaa aacccttgga cccataattt cttataatta | 1080 |
| gttttgtaat actaaattta ccattgagag cgacctctcg tcactagtaa ttcgaagatc | 1140 |
| tcatattcat gacctatatt aaccatcttc cagtcaagta atttcaatcg aaattcatca | 1200 |
| aatcatata tttaacttag taatcacata tgatatggct aatatacgta atataacgat | 1260 |
| aaagatttct tcacgctttg atattccata aagcaatgga aatatggaat ggaagaaaac | 1320 |
| atttgaattt tacaagaaac aataaataga aggcctacaa aacatgacaa cccacacaca | 1380 |
| cacacacgaa aagagaaaat ataaagaagg acatgtaacg tgacgtagcg tagatctcca | 1440 |
| ttcactccaa tcgttttgca tggagcatgc atgtgtgtgt accgtgcacg tagtagagac | 1500 |
| cacacaactc cttcataaaa gccctctctc tcttaccatc accaaaacac aacaatccga | 1560 |
| tcagaaaat | 1569 |